INSTITUTE FOR HEALTHCARE IMPROVEMENT WORKSHOP

Title: Report on INSTITUTE FOR HEALTHCARE IMPROVEMENT Workshop

Date: August 7, 2017 to August 10 2017

The Safe Care Saving Lives team participated in Quality Improvement capacity building workshop conducted by the Institute for Healthcare Improvement, Boston, USA. Dr. Robert Lloyd, Vice President at Institute for Healthcare Improvement and Jane Taylor, Consultant at Institute for Healthcare Improvement conducted the training.

During the workshop, the team from Institute for Healthcare Improvement talked about steps of improvement, Deming's system of Profound Knowledge and also suggested how to apply data analysis and the concepts of Breakthrough Series Collaborative with Quality Improvement teams at the facilities.

There were sessions on Theory of Improving a system which included developing driver diagrams, project charter, coaching techniques and conducting effective Quality Improvement meetings. Didactic lectures, interactive discussions and activities, games and videos were used to help the participants in understanding how to help the teams gel together and understand the dynamics of the team composition. There was a session on data analysis which included collection of data, identifying mean and median and plotting run charts and control charts. They helped in understanding how to develop the indicators, dashboards and data visualization to make it effective communication and advocacy tool.

Bob and Jane's experience and command over the subject helped Safe Care Saving Team members in understanding the subject and the concepts using many examples for developing the insight for solving the problems and motivating the Quality Improvement teams at the facilities.

Managers and coaches should consider the four components of Deming's system of profound knowledge - Appreciation of the system, theory of knowledge, understanding variation and human behavior - was clearly explained, with the emphasis on classification of hospital's processes under these components.

Robert Lloyd mentioned that a coach is supposed to mentor teams and make them understand the difference in these components. The combination of these four concepts lead to quality improvement

and so leads to the tools and key improvement methods. This science of improvement when combined with the subject matter knowledge drives the system to gain the expected improvement.

The Institute for Healthcare Improvement workshop has made Safe Care Saving Lives team understand the different types of models for improvement, tools of Quality Improvement, PDSA cycle, designing of driver diagram, designing of the flow charts, and how to motivate the clinicians for participating in Quality Improvement practices etc. The different brainstorming technique which were practiced during the session will help the project team in using them with the QI team at the facilities.

Bob and Jane also briefed the coaches in building effective team, making ground rules and conduct effective and productive meetings. These team building exercises were useful and could be implemented in the hospitals. Nominal group technique (NGT) and affinity diagram are likely to be feasible and effective in hospital teams.

The three main questions involved in Model for Improvement and testing changes through plan do study act cycles were clearly explained. The delegates focused on usage of quality tools like fish bone analysis, flow chart, control chart in the process improvements. The participants were asked to demonstrate examples using these tools, which enhanced the practical skills of coaches. On an individual level, the most useful activity was the spinning of coin to explain the concept of PDSA test and graphical representation. This activity can be made applicable in motivated and low load facility teams.

The team also discussed about basic principles of sample data collection and what are the thumb rules while deciding the sample size. Teams were formed for each of the tasks assigned and they were coached on how to draw a driver diagram, flowcharts and when to plot a pareto chart, run chart and control chart. Team understood the use of analyzing the outcome, process and balancing measures. Bob depicted the concept and importance of data analysis and the usage of specific charts in representing and interpreting specific conditions. The concepts of defectives versus defects, proportion versus percentage versus rate versus ratio were briefed and the charts to be used in different conditions based on availability of data were portrayed.

Vikrant and Pratyush had further discussions with Bob and Jane for inputs on the analysis and presentation of the mortality data in the special new born care units. Jane and Bob suggested the team

to use different types of chart for the control charts and not only p charts. They suggested to have specific graphs for each of the data as per the control chart rules. They emphasized on presenting everything on small multiple wherever possible. They took the example to prepare small multiple to show the neonatal mortality of all SNCU and mortality by hospital type by hospital size in single slide to make more sense. Jane demonstrated from other project that funnel charts can be also useful for our presentation of mortality data for multiple hospital at a time.

We also discussed about shift of median in run chart and shift in mean in control charts. The Institute for Healthcare Improvement team advised to do only if we have shift of approach or indication of improvement. The discussion was useful as it helped in making data analysis more scientific and help better arrange our presentations.

Summary:

- The lens of profound knowledge, assigning the roles for the team members, understanding PDSA cycle and driver diagrams were very useful and easy to apply.
- Activities and interactive sessions helped the team in new ways of thinking in different situations.
- The seven steps of effective meeting process and six hats techniques was new and easy to understand.
- The sessions were participatory and interactive, hence everybody got the chance to speak and clear their doubts.
- Dividing the whole team into small groups and presenting their views on the topics promoted cross learning.

The team was taught to develop

- A clear, measurable aim
- A measurement framework in support of reaching the aim
- A clear description of the ideas (content) and how these ideas are expected to impact the results (the causal pathway from changes to desired outcomes)
- A clear description of the execution strategy (what will be done to ensure reliable adoption of the content?)

- Dedication to rapid testing (PDSA cycles), prediction, and learning from tests
- Understanding, describing, and visualizing systems (e.g., using a process map or value stream map)
- Learning from variation and heterogeneity:
- Use of time-ordered data to detect special cause and improvement.

Agenda:

Day 1:

- Introduction of the team members and presenters from INSTITUTE FOR HEALTHCARE IMPROVEMENT.
- Dividing the team into equal groups.
- Developing group resume in a standard format shared by the presenters.
- Discussion on difference between consultant, mentor and coach.
- Nominal group technique for generating ideas.

Day 2:

- 7 steps of effective meeting.
- Model for improvement
- PDSA cycle on coin spins.
- Driver diagram.
- Aim statement constructing.

Day 3:

- Exercise to enhance clarity on decision making through playing cards.
- 7 thinking hats methodology
- Generating ideas and selecting the most effective idea through Nominal group technique.
- Understanding the systems approach on improvement.

Day 4:

- Presentation on data analysis.
- Run charts.
- Control charts.
- Types of quantitative data.

Summary Agenda progress:

Day 1: The INSTITUTE FOR HEALTHCARE IMPROVEMENT workshop started with the introduction of team members and developing group resume as part of the activity. The workshop followed with the different activities according to the daily agenda mentioned above. The INSTITUTE FOR HEALTHCARE IMPROVEMENT workshop was so interactive and activity driven that made all the participants being involved and relative. The exercises designed were so correlative and most can be followed at the facilities all the participants are working at.

Day 2: Day 2 of the workshop began with the presentation on model for improvement and a detail discussion and activity on PDSA cycle and Driver diagram. There was an interesting PDSA activity on coin spinning as well.

Day 3: The day 3 of the workshop focused on brain storming the team in generating ideas and identifying the most effective idea through nominal group technique.There was also a detailed discussion on understanding the systems approach on Quality Improvement.

Day 4: The 4th and last day of the workshop started with the agenda of focusing on data analysis, types of quantitative data, understanding the difference between defects and defectives. There was also a detailed presentation on the use of different charts like run charts, control charts, p chart, q chart etc.